

LISTING OF CLAIMS

The following listing of claims will replace all prior versions, and listings of claims in the application:

1-3. (Canceled).

4. (Currently amended) A substantially pure Pin1 polypeptide comprising:
a WW domain consisting of an amino acid sequence substantially the same as amino acid residues 5-43 of SEQ ID NO:2 and having protein-protein interaction activity, or a functional fragment thereof, wherein the WW domain or functional fragment thereof binds to NIMA; and
a PPIase domain having peptidyl prolyl isomerase activity.

5. (Currently amended) The substantially pure Pin1 polypeptide of claim 4, wherein ~~said protein-protein activity comprises NIMA association activity~~the peptidyl prolyl isomerase activity of the PPIase domain is not inhibited by cyclosporin A or FK520.

6-7. (Canceled).

8. (Currently amended) A substantially pure Pin1 polypeptide comprising:
a PPIase domain consisting of an amino acid sequence substantially the same as amino acid residues 59-163 of SEQ ID NO:2 and having protein-protein interaction activity, or a functional fragment thereof, wherein the PPIase domain or functional fragment thereof has peptidyl prolyl isomerase activity; and
a WW domain.

9. (Currently amended) The substantially pure Pin1 polypeptide of claim 8, wherein ~~said protein-protein interaction activity comprises PPIase activity~~the WW domain binds to NIMA.

10-18. (Canceled).

19. (New) A substantially pure WW domain of a Pin1 polypeptide consisting essentially of amino acid residues 5-43 of SEQ ID NO:2; wherein the WW domain binds to NIMA.

20. (New) The substantially pure WW domain of claim 19, wherein one or more N-terminal and/or C-terminal amino acid residues have been removed from amino acid residues 5-43 of SEQ ID NO:2, and the WW domain binds to NIMA.

21. (New) A substantially pure WW domain of a Pin1 polypeptide consisting of amino acid residues 5-43 of SEQ ID NO:2, or a functional fragment thereof which binds to NIMA.

22. (New) A polypeptide comprising a WW domain of a Pin1 polypeptide consisting of amino acid residues 5-43 of SEQ ID NO:2, or a functional fragment thereof, fused to a heterologous polypeptide, wherein the WW domain binds to NIMA.

23. (New) A polypeptide comprising a WW domain of a Pin1 polypeptide consisting essentially of amino acid residues 5-43 of SEQ ID NO:2, fused to a heterologous polypeptide, wherein the WW domain binds to NIMA.

24. (New) The polypeptide of claim 23, wherein one or more N-terminal and/or C-terminal amino acid residues have been removed from the WW domain and the WW domain binds to NIMA.

25. (New) The polypeptide of claim 24, wherein the heterologous polypeptide is an epitope tag, a carrier protein, a DNA binding domain, a transactivation domain, or an enzyme suitable for use as a label.

26. (New) A substantially pure PPIase domain of a Pin1 polypeptide consisting essentially of amino acid residues 59-163 of SEQ ID NO:2; wherein the PPIase domain has peptidyl prolyl isomerase activity.

27. (New) The PPIase domain of claim 26, wherein the peptidyl prolyl isomerase activity is not inhibited by cyclosporin A or FK520.

28. (New) A substantially pure PPIase domain of a Pin1 polypeptide consisting of amino acid residues 59-163 of SEQ ID NO:2, or a functional fragment thereof having peptidyl prolyl isomerase activity.

29. (New) A substantially pure PPIase domain of a Pin1 polypeptide consisting of amino acid residues 59-163 of SEQ ID NO:2 from which one or more N-terminal or C-terminal amino acids have been removed, wherein the PPIase domain has peptidyl prolyl isomerase activity.

30. (New) A polypeptide comprising a PPIase domain of a Pin1 polypeptide consisting of amino acid residues 59-163 of SEQ ID NO:2, or a functional fragment thereof, fused to a heterologous polypeptide, wherein the polypeptide has peptidyl prolyl isomerase activity.

31. (New) A polypeptide comprising a PPIase domain of a Pin1 polypeptide consisting essentially of amino acid residues 59-163 of SEQ ID NO:2, fused to a heterologous polypeptide, wherein the PPIase domain has peptidyl prolyl isomerase activity.

32. (New) The polypeptide of claim 31, wherein the heterologous polypeptide is an epitope tag, a carrier protein, a DNA binding domain, a transactivation domain, or an enzyme suitable for use as a label.

33. (New) A substantially pure fragment of a Pin1 polypeptide, which Pin1 polypeptide consists of amino acid residue 1-163 of SEQ ID NO:2, wherein the fragment comprises amino acid residues 5-43 of SEQ ID NO:2 and binds to NIMA.

34. (New) A substantially pure fragment of a Pin1 polypeptide, which Pin1 polypeptide consists of amino acid residue 1-163 of SEQ ID NO:2, wherein the fragment comprises amino acid residues 59-163 of SEQ ID NO:2 and has peptidyl prolyl isomerase activity.

35. (New) A substantially pure polypeptide comprising:
a fragment of a Pin1 polypeptide, which Pin1 polypeptide consists of amino acid residue 1-163 of SEQ ID NO:2, wherein the fragment comprises amino acid 5-43 of SEQ ID NO:2; and
a heterologous polypeptide,
wherein the substantially pure polypeptide binds to NIMA.

36. (New) A substantially pure polypeptide comprising:
a fragment of a Pin1 polypeptide, which Pin1 polypeptide consists of amino acid residue 1-163 of SEQ ID NO:2, wherein the fragment comprises amino acid residues 59-163 of SEQ ID NO:2; and
a heterologous polypeptide,
wherein the fragment has peptidyl prolyl isomerase activity.